

Development of the Primary Structured Document in a Pre-Fire Planning Program for the Miami, Oklahoma Fire Department

Executive Development

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Abstract

The purpose of this research project was to develop the primary structured document that would be used as the basis for the local pre-fire planning program. Action research supported by historical methods were used to (a) identify the objective of pre-fire planning, (b) determine the level of planning that would best fit the needs of the department, (c) identify what information should be included in the form and how.

The research was important to the department due to the present lack of company officer experience. Additionally, it was believed the inclusion of a pre-fire planning program would aid in improving current fire insurance rating and scene safety. The literature confirmed these assumptions and provided additional information. The principal procedure used was the introduction of literature into a group decision-making process, however, statistical analysis of data was used to improve the performance of the decision-making panel.

The results of this research determined that the Miami Fire Department would describe the objective of preplanning as: Increasing the fire ground commander's effectiveness by supplying a tool which lends to the quick retrieval of information essential to conducting and size-up. It was further decided that the department would employ a level of planning that would be conducted on all commercial structures. Information believed most important and relevant was included in the final structured document entitled a Facility Information Form.

The recommendations resulting from this research included the incorporation of the Facility Information Form as the basis for the future preplanning process and the finalization of the entire process. Recommendations to future users of this research include the indoctrination of a preplanning process into their standard scope of actions. This indoctrination should include designing the format to fit their specific local needs.

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Introduction

The Miami Fire Department is responsible for maintaining a state of readiness for many different types of emergencies within the community. Readiness is usually only achieved when executive officers actively pursue planning within their departments. This executive officer was asked by the Fire Chief to develop and implement a pre-fire planning program that would serve the current and future needs of the department.

The purpose of this research project was to develop the primary structured document, or form, to be utilized in the pre-fire planning program. Action research supported by the historical research method was applied to answer the following questions:

1. What should be the objective of pre-fire planning in the Miami Fire Department?
2. What level of planning process would best serve the needs of the department?
3. What information should be included in the pre-plan form and how?

Background and Significance

The Miami Fire Department (MFD) has undergone substantial changes in the past five years. Expanding its existing fire suppression and prevention services to include first response emergency medical services. This change included the cross-training of ninety percent of the department's line personnel to the emergency medical technician basic level. Hazardous materials response and some technical rescue services were also added to help meet the expanding needs of the customer. Keith (1993) disclosed, "In today's society, municipal services have come under increased pressure to do more with less and to be more productive. The fire service is no exception to the taxpayers' expectation" (p. 4). The process of implementing these additional services was made somewhat simpler

because within the last six years fifty percent of the department's personnel have had to be replaced due to special retirement incentives. As with all things in life, for everything gained there is usually something lost. What MFD lost was experience. To offset this loss, a great deal of training has been invested in the development of all personnel. A variety of tools and mechanisms, with the expressed purpose of enhancing performance, have been incorporated for the company officers. Effective initial performance on the fire scene is critical for MFD due to the fact that most second alarm companies arrival times are greater than thirty minutes. The Fire Chief believed the department was at a juncture where it could incorporate another essential tool, a pre-fire planning process. Francis Brannigan (1992), a noted fire service professional in the area of building construction made the following introductory statement in his book Building Construction for the Fire Service. "Pre-fire planning is a key element for fire professionals. Its value cannot be overstated. Without it fire fighters are reduced to just reacting to a fire rather than being prepared for its many potential hazards" (p. 1).

In the past, the department used a vague method of pre-fire planning. The method mainly consisted of a company walk-through or tour of buildings within the jurisdiction. Although information gained on these walk-throughs was and still is beneficial, its use was limited to those individuals actually participating in the tour. Information gathered was never documented for use at a later date. Jack Fetrow (1998) related, "even if your department has toured it [the facility] on a regular basis it would still be tough to remember all the details that could affect the outcome of an incident" (p. 8). During a crisis with the old system, the ability to recall information was entirely dependent upon each individuals' memory. Reliance on memory was a poor practice and left much to chance and approximation. Additionally, the National Fire Protection Association (NFPA) (1993) defined a pre-incident plan as "a written document" (p. 1420-5). Another disadvantage of the old system was that most were only

performed on large or high risk complexes. This had a tendency to lead to complacency on lower risk structures, thereby, possibly increasing the risk to responders. Jerry Knapp (1998) commented that Rock Hill, Missouri preplans all of their business structures. He believes, for firefighters, proper preplanning could prevent injured and dead firefighters. Wolf (1998) confirmed this relating that a 1997 study of firefighter fatalities showed that some might have been avoided with proper pre-incident planning. At MFD, the individuals responsible for completing life-safety inspections, had additional opportunities to gain knowledge of businesses. However, usually these inspections were only performed by one person on shift, consequently, limiting the benefit of the additional information.

For thirty years Francis Brannigan (1998) has professed, “The building is your enemy. Know your enemy.” (p. 123). Although building knowledge has always been a critical factor in the risk associated with a facility, the construction industries’ increased reliance on truss and lightweight building materials, has amplified our need for some method of pre-fire planning. Norman (1991) reported the use of these building techniques are fine under normal conditions, but during fires, several draw-backs are identified. Lack of mass, connector weaknesses, and dependence on every part of the element were all identified as major concerns. He expressed that it was critically important for the incident commander to be informed of their presence when developing a course of action.

The recent addition of a computer network in the MFD improved the department’s ability to quickly store and recall large amounts of data. Carter and Raush (1989), observed in the past, this ability was not present and created a barrier to the effective use of preplan information. Additionally, many software companies are now supplying fire service management programs that are capable of linking pre-fire planning data with code enforcement data.

The department has a compelling interest in continuing to improve its Insurance Services Office

(ISO) rating. Having recently enhanced the city's rating by one point, has inspired us to pursue additional improvement opportunities. The ISO (1980) Fire Suppression Rating Schedule identified valuable points to be gained in the area of training by having and utilizing pre-fire plans on an annual basis.

The implementation of an effective pre-fire planning process should benefit all department personnel. From the company officers and line personnel, who need the information to make safe, and effective, fireground decisions, to the executive and staff officers who insure departmental readiness through planning and preparation. The absence of a local planning process was having minimal 'documented' impact. However, that lack of pre-emergency information could have had a major impact at anytime. Keith (1995) reported "in the United States from 1987 - 1993, there were 262 fire losses where the local fire department had done no, or inadequate, pre-incident planning. The total estimated gross loss of these fires was \$740 million" (p. 38). "Since a large percentage of businesses which suffer a serious fire never reopen, it is in everyone's interest that such a fire does not happen" (National Fire Academy (NFA), 1986, p. 6).

The MFD executive staff sees this program as an opportunity to prevent possible future problems and improve our current state of readiness. No doubt there are other departments similar to MFD that could benefit from this research conducted in pre-fire planning. Phelps and McDonald (1984) remarked that nearly all fire service scholars have professed the need for pre-fire planning. Unfortunately, a large majority of fire departments have no preplanning program, or a haphazard one at best. Their remarks were reaffirmed by Williamson (1994) in his applied research summary of the utilization of pre-fire planning in the United States fire service. National Fire Academy (1996) established, that as an executive officer, it is important to be able to "identify and analyze problems and

to select and implement appropriate problem strategies” (p. 4-2). The design and implementation of a pre-incident planning program is additionally identified as an administrative function by the International Fire Service Training Association (IFSTA) (1989).

Literature Review

The objective of pre-fire planning.

In 1970, IFSTA stated that regardless of all the positive benefits and results of pre-fire planning, the primary purpose remains the act of increasing efficiency. According to IFSTA (1988) the purpose of pre-fire planning has changed little. The current edition of Water Supplies for Fire Protection maintained that a good pre-fire plan as “one of the most beneficial tools in increasing fire fighting efficiency on the fireground” (p. 13). “Unlike fire prevention or fire safety inspections, pre-incident planning assumes an incident will occur. It makes no special effort to prevent a fire or eliminate a hazard, but rather to prepare for an incident, regardless of likelihood” (NFPA, 1993, p. 1420-4).

One of the most common purposes stated regarding pre-fire planning has been identified as providing information essential to the incident commander in making an effective size-up (Brunacini, 1985; IFSTA, 1991; Smith, 1989). Burns and Plaugher (1991) stressed the importance of having the information before an incident occurs because “during the emergency, time is limited, and access to vital information usually is impossible” (p. 9-79). Regarding the management of company operations at an incident scene NFA (1992) stated the following:

From the Incident Commanders point of view the fire scene or incident can be considered a problem that requires a solution. Since the most difficult portion of the problem-solving process is the development of facts, it can be seen that the analysis and eventual answers to the incident

commanders problems can be found in the facts developed in the pre-fire planning process. (p. 5-15)

Pertaining to the recommended practices for pre-incident planning in warehouse occupancies NFPA (1993) identified the following:

Pre-incident planning is a total concept based on the following elements: awareness of the problem, management commitment, education, prevention, protection, and emergency organization. A well-developed pre-incident plan involves information gathering; analysis and dissemination; the 'what if approach'; and review, drill, and evaluation. (p. 1420-4)

Phelps and McDonald (1984) related that although the detailed in-depth written plan has a definite purpose in developing overall incident preparedness, it is of limited value to the initial officer in command. Therefore, a summary of the detailed plan or information sheet is the first tool used by many departments on the fire scene.

The information to be included.

Preplans should focus on supplying information to the problems of life safety, fire control, and property conservation (IFSTA, 1989). To determine the cost of insurance, underwriters typically examine the facilities' construction, occupancy, protection and exposure features. (Glatts, 1990; Kirsch, 1992). Jenaway (1986) specified that the amount of detail included within the preplan be based upon the end user's defined needs. However, Brunacini (1985), Carter and Rausch (1989), Clark (1991), all expressed that a pre-fire plan not go too deeply into detail. They claimed that when it does there is more chance for errors and the plan becomes too time consuming to use on the fire scene. Additionally Clark (1991) insisted that the preplan "stress non-variables," or things that change at a low frequency (p. 287). When designing a preplanning form, Phelps and McDonald (1984) suggest the arrangement be

based on the following statement:

As an incident commander you need specific pertinent information that will assist you in making the right decisions in the first crucial minutes, it is not necessary to have all sorts of miscellaneous information on the preplan. Approach the situation through the design of a bull's eye. The center contains what is really essential or the must-know information. The next or middle ring would contain the should-know information, and the last or outer ring holds the nice-to-know information. (p. 17)

Brunacini (1985) established that “the preplan format is important if the plan is to be a regular component of fireground operations. The plan layout should present primary information using a graphic- and symbol- oriented approach” (p. 42). According to Carter and Rausch (1989) most summarized pre-fire plans consist of two basic parts; the data sheet and the building layout map. Simmons (1988) further described the typical data sheet as “a structured written description of building features,” whereas the building layout map “diagrams the targeted buildings floor plan and surrounding streets” (p. 44).

The level of the planning process.

The determination of what facilities to plan was described by Smith (1989) in the following statement:

Choosing which facilities should be planned is the responsibility of each department. However, the first consideration is those buildings that involve a high risk to life safety followed by occupancies that are associated with a high fire frequency and conflagration potential. (p. 16)

Carter & Rausch (1989) asserted a much broader scope than Smith. They claim that in addition to planning the target hazards, planning should be considered for all commercial structures. For full ISO

credit in the area of pre-fire planning, Hickey (1993) claimed that each commercial, industrial and institutional facility must be planned.

Once preplans have been put in service, Kansky (1995) suggested that they are reviewed periodically to maintain their effectiveness. Company or departmental drills provide the perfect setting for the review and updating of pre-fire plans. Incidentally, ISO (1980) requires semi-annual reinspections and reviews to earn full pre-fire planning credit, with eighty percent credit awarded for annual inspections.

In summary, the literature reviewed identified factors relevant to the primary objectives and purpose of pre-fire planning. It provided detail on which structures need to be planned and the levels of planning processes currently in use. The review contributed to what information should be included within the preplan form and how it should be arranged.

Procedures

Definition of Terms

Brainstorming. A group method of stimulating the production of ideas.

Force Field Analysis. An assessment tool used in identifying driving and restraining forces in the decision-making process.

Pre-Fire Plan. Document prepared in advance, containing information and/or procedures for attacking fire incidents at a given location.

Pre-Incident Plan /Pre-Emergency Plan. Document prepared in advance, containing information and set procedures for possible incidents/emergencies at a given location.

Preplanning. Act of preparing to handle an event before it occurs.

Research Methodologies

The desired product of this research was a structured form to address the preplanning needs of the department. This research was historical in the essence that a literature review was used to identify past and present factors relating to the development of a preplanning program. The initial information gathered on preplanning was identified in an online search of NFA Learning Research Center using the search words “Pre-fire, Pre-incident, Pre-emergency and Preplanning.”

The research was action oriented because the historical information gathered was applied to a decision-making format to derive the actual development of the local pre-fire planning program. The NFA (1994) group decision-making process used throughout this research is outlined in Appendix A. The process was used to decide which options regarding the local objective and the level of program would best fit the needs of the department. Publications (see Appendix B) containing descriptions of information included in pre-fire planning were explored to extract individual information items. These items were statistically compared to determine common tendencies. Similarly, actual or illustrated preplan forms were obtained from the literature and other regional sources (see Appendix C). These plans were analyzed in the decision-making process to identify how the form should be graphically arranged. A draft form was created and tested in fire fighting simulations, then revised to produce the end product of this research. Jenaway (1986) identified in the initial literature review that preplanning programs varied greatly from department to department. Therefore, an actual survey to examine the preplanning procedures of other departments was not believed relevant.

Individuals involved in the decision-making process were all departmental company officers and above. Company officers were included in the process to strengthen acceptance of the consequent

program. Furthermore, this product was essentially being developed to assist these officers. The department has twelve individuals, at or above the rank of Company Officer, all of which participated in the decision-making panel.

Assumptions and Limitations

The results of this research will be a collective decision of twelve individuals on a local level. Therefore, it cannot be construed to be a representative solution for the entire fire service. However, if a department has similar goals, purposes and circumstances the results could be used in the development of their program. It must also be identified that, because a consensus was desired for most decisions, individual personalities may have affected the decisions reached.

Results

The decision-making panel evaluated the referenced objectives of preplanning and determined MFD would describe the objective of pre-fire planning as: Increasing the fire ground commander's effectiveness by supplying a tool which lends to the quick retrieval of information essential for conducting a size-up.

Using a level of preplanning that allowed for pertinent information on all commercially zoned structures within our jurisdiction was important to the panel. The focus of the form therefore, was to provide basic information on all commercial structures with a link to more in-depth information on complex hazards. The basic information would be compiled on a 'Facility Information Form' (FIF). This title was chosen because at a later date, complex hazards will be thoroughly planned and labeled as 'Pre-Emergency Plans' (PEP). In addition, the title of the form implies 'information' not 'a plan' reminding the fireground commander of what is being provided. We do not want to limit the commanders' ability

by prescribing that all incidents are to be approached in only one way or a certain plan must be followed. We would rather they learn to gather the necessary information and develop an effective course of action. It was decided the department would later develop the PEP to encompass the complete planning processes as outlined in NFPA (1993) 1420. The panel believed basic information gathered in FIFs would allow for better determination of which hazards to develop PEP for within the jurisdiction.

The panel was initially unable to decide what basic information should be included in the FIF due to the large variances in the recommendations. Statistical analysis was therefore applied to determine what information items were used most often. The number of occurrences was computed and evaluated on all information recorded (see Appendix D). Of the twenty-three (23) sources used eighty-five (85) information items were mentioned, of these only twenty-two (22) percent were mentioned in more than fifty (50) percent of the articles.

To determine the physical layout of the FIF, the panel examined visual examples of preplanning forms. It was determined that forms which required the use of section blocks and check sheet styles were easier to interpret. The decision was made to minimize the amount of structured writing on the form.

Eventually, a draft FIF was created (see Appendix E) and tested in fire fighting simulations. Revisions to the draft were made by the panel to help summarize and clarify the information. The product of this research, a Facility Information Form and General Directions, can be found in Appendix F.

Discussion

It is important to note that the literature authors did not always identify the level of preplanning they were relating to, therefore, use of the words pre-fire, pre-incident and pre-emergency plans are used indiscriminately in the Background and Literature Review sections of this report.

The Facility Information Form summary section was heavily influenced by NFA (1986). Jenaway (1986) also had a critical impact in identifying the details and intent of the process of pre-fire planning. The research panel focused a large amount of their attention to these authors, due to the large amount of detail they provided. Other articles reviewed added important information to the end product. The panel expressed surprise by the amount of detail ending up in the FIF. Entering into the project many believed a lot less information would be incorporated.

The group decision-making process chosen to use throughout this research has been used before within the department and has become a valuable asset in the creation of new policies and procedures. Although this process usually results in a more usable product, the time and cost of the panel limits its use to only about two policies a year. Answering the first two questions of this research was paramount in directing and guiding the creation of the FIF. The third question of what and how was answered in the examination of information and ideas to be included in the FIF. Although the statistical data obtained in Appendix D was helpful in guiding the panel's decision, it was not used as an absolute priority list.

Several conclusions can be drawn from this research. First and foremost, pre-fire planning has been identified as a key factor in the success of fire ground operations as indicated by Wolf (1998). Another conclusion drawn was that although there is a need for pre-fire planning, many departments do not utilize this important tool (Williamson 1994). The degree or level of planning that is conducted within

the fire service varies notably. The creation of pre-fire planning programs should be implemented in all fire service jurisdictions. Using the basic concepts and information in this research could serve as a useful guide for this establishment.

After trial testing of the FIF on the fire ground, it has become apparent that the form should benefit MFD by increasing efficiency, accuracy and safety of the size-up process. My interpretations of the results are that we have created a form that will guide our pre-fire planning program along the lines recommended by fire service literature and standards.

The FIF should benefit our organizations by increasing our efficiency on the fire scene and better enabling us to protect the public we serve. This research, like any research or policy, must be constantly reevaluated to identify changes and improvements that will increase its usefulness. This form is not an exception and will be reevaluated on an annual basis. Since the trial implementation of the FIF, an increased awareness of all personnel involved has been observed. Company officers are more observant when visiting structures and firefighters have expressed a better understanding of the factors relevant to conducting a scene size-up.

Recommendations

Miami Fire Department should continue to incorporate the use of FIF into their procedures and policies at all commercially zoned structures. Determination of the most beneficial method of entering data onto the FIF should be addressed. The process of updating FIFs should be included in this investigation followed by the continued development of PEP. Department members have received training on the use of FIF, however, investigations should be conducted to insure members are using all the benefits afforded by it. As noted in the discussion, continued reevaluation of the form is important to

keep it up-to-date. It is further recommended that all fire departments incorporate some method of pre-fire planning to aid their officers ability in conducting effective scene size-ups. Any departments using this research to format their own pre-fire plan must insure that they tailor their own specific needs into the process.

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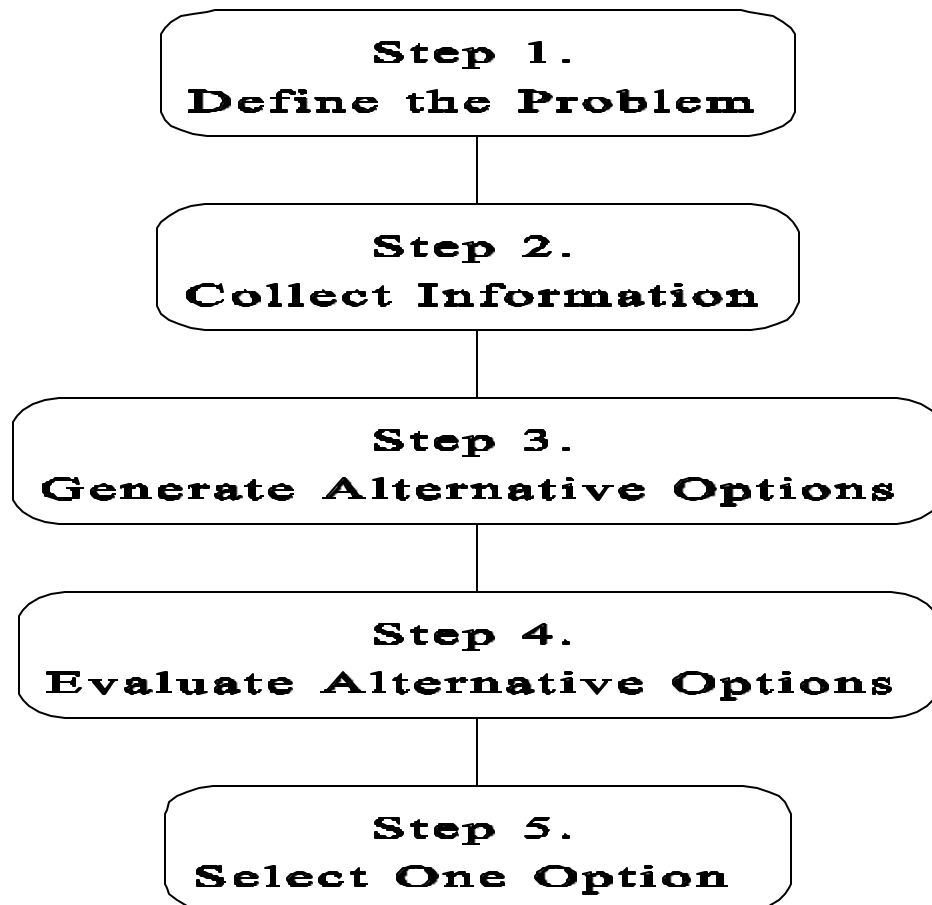
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Appendix A (Decision-Making Process)

Outline to Decision-Making Process as described in NFA (1994) Leadership: Strategies for Company Success, Instructor Guide.

Description of Decision-Making Process Employed.

Decisions were obtained by a consensus of all panel members through group process decision-making. Brainstorming was heavily utilized in identifying options and relevant information. Force field analysis was then utilized in evaluating and selecting options.



Appendix B (Sources of Preplan Information Data)

Sources from which information data was gather from for inclusion in the FIF.

Literature / Articles / Software

- Arrakis Publishing. (1998). Fire Programs (Version 7).
- Brunacini, Alan V. (1985). Fire Command.
- Burns, Edward & Plaughter, Edward. (1991). Pre-Fire planning for industrial emergencies.
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- Smith, James P. (1989). Fire studies: The value of preplanning.

Visionary Systems, Limited. (1998). Firehouse Software (Version 3.5).

Appendix C (Sources of Preplan Format Data)

Sources of pre-plan forms used in identifying possible ways of formatting information on the FIF.

Literature / Articles

Brunacini, Alan V. (1985). Fire Command.

Burns, Edward & Plaughner, Edward. (1991). Pre-Fire planning for industrial emergencies.

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Regional Fire Departments

Bartlesville Fire Department, OK

Carthage Fire Department, MO

Chanute Fire Department, KS

Claremore Fire Department, OK

Del City Fire Department, OK

Tinker Air Force Base Fire Department, OK

Enid Fire Department, OK

Joplin Fire Department, MO

Lawton Fire Department, OK

Midwest City Fire Department, OK

Neosho Fire Department, MO

Oklahoma City Fire Department, OK

Pittsburg Fire Department, KS

Pryor Fire Department, OK

Stillwater Fire Department, OK

Sulphur Fire Department, OK

Tulsa Fire Department, OK

Appendix D (Information Data Comparison)

[illegible]

[illegible]

Information Identified	Amount	Total	Area	Code	Notes
Occupancy Day & Night	0.173	4	X	X	(6001) - Occupancy Day & Night
Exposure Height	0.173	4	X	X	(6001) - Exposure Height
Exposure Direction	0.173	4	X	X	(6001) - Exposure Direction
Exposure Within	0.15	3	X	X	(6001) - Exposure Within
FD Access Problems	0.15	3	X	X	(6001) - FD Access Problems
Number of Alarms Required	0.15	3	X	X	(6001) - Number of Alarms Required
Data Accessed or Reexamined	0.15	3	X	X	(6001) - Data Accessed or Reexamined
Incapacitation of Occupants	0.005	2	X	X	(6001) - Incapacitation of Occupants
Emergency Lighting	0.005	2	X	X	(6001) - Emergency Lighting
Flammable Interior Finishes	0.043	1	X	X	(6001) - Flammable Interior Finishes
Security Problems	0.043	1	X	X	(6001) - Security Problems
Dollar Value of Stock	0.043	1	X	X	(6001) - Dollar Value of Stock
Dollar Value of Building	0.043	1	X	X	(6001) - Dollar Value of Building
Dollar Value per sq. ft.	0.043	1	X	X	(6001) - Dollar Value per sq. ft.
Beam Shift/Off	0.043	1	X	X	(6001) - Beam Shift/Off
Insurance Information	0.043	1	X	X	(6001) - Insurance Information
Exterior Obstructions	0.043	1	X	X	(6001) - Exterior Obstructions
House Keeping	0.043	1	X	X	(6001) - House Keeping
Building Plans	0.043	1	X	X	(6001) - Building Plans
Roof Plans	0.043	1	X	X	(6001) - Roof Plans
Elevation Plans	0.043	1	X	X	(6001) - Elevation Plans
Theatrical Plans	0.043	1	X	X	(6001) - Theatrical Plans
Year Built	0.043	1	X	X	(6001) - Year Built
Fire/No Entry Needed	0.043	1	X	X	(6001) - Fire/No Entry Needed
Status of Occupancy	0.043	1	X	X	(6001) - Status of Occupancy

(6001) - Occupancy Day & Night
(6001) - Exposure Height
(6001) - Exposure Direction
(6001) - Exposure Within
(6001) - FD Access Problems
(6001) - Number of Alarms Required
(6001) - Data Accessed or Reexamined
(6001) - Incapacitation of Occupants
(6001) - Emergency Lighting
(6001) - Flammable Interior Finishes
(6001) - Security Problems
(6001) - Dollar Value of Stock
(6001) - Dollar Value of Building
(6001) - Dollar Value per sq. ft.
(6001) - Beam Shift/Off
(6001) - Insurance Information
(6001) - Exterior Obstructions
(6001) - House Keeping
(6001) - Building Plans
(6001) - Roof Plans
(6001) - Elevation Plans
(6001) - Theatrical Plans
(6001) - Year Built
(6001) - Fire/No Entry Needed
(6001) - Status of Occupancy

Appendix E (Draft Facility Information Form)


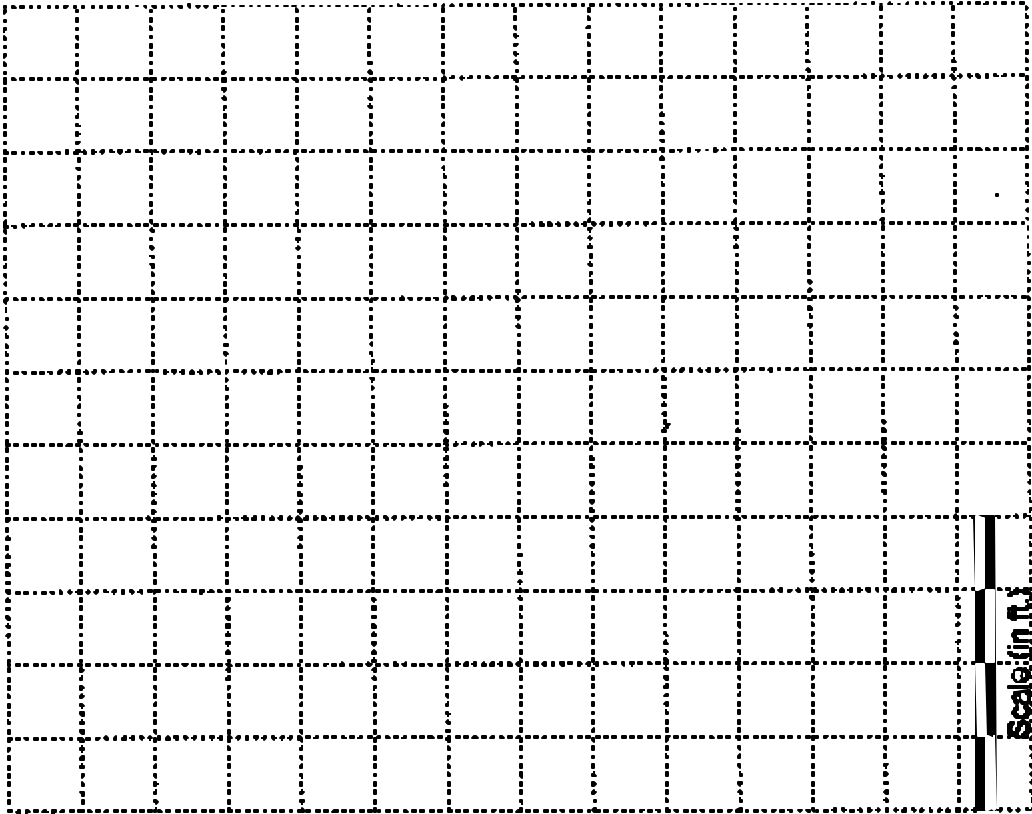

Draft Facility Information Form (FIF) Front


Note: Standard 8½ X 11" size reduced by 20% to fit report format.

Facility Name		Fixed Property Use:		Date	FIP #
Address		Construction Description			Type
Water Supply: Location, Type & Flow (in gpm)		Exposure: Description, Distance (in feet) & Fire Flow			
#1		(A)			
#2		(B)			
#3		(C)			
#4		(D)			
Access Locations for:		Fire Floor Requirements			
Sprinkler Connection		Formal Type			
Standpipe Connection		Level of Involvement 25% 50% 75% 100%			
Annunciator Panel		Flow Stream (gpm)			
Stairs		Sprinkler (gpm)			
Elevator		HazMat Considerations			
Key Holder		Chemical Name Location Amount			
Electric Disconnect					
Gas Disconnect					
Hazardous Features <input type="checkbox"/> True Construction <input type="checkbox"/> Exposed Trusses <input type="checkbox"/> UnExposed Trusses <input type="checkbox"/> Attic <input type="checkbox"/> Basement <input type="checkbox"/> Vertical Voids <input type="checkbox"/> Windows/Doors <input type="checkbox"/> Complex Arrangement		Unsanitary Features <input type="checkbox"/> Fire Walls <input type="checkbox"/> Fire Doors <input type="checkbox"/> Roof Ventilators <input type="checkbox"/> Enclosed Stair Wells Roof Ventilation <input type="checkbox"/> Feasible <input type="checkbox"/> Not Feasible			
Construction Of:		Other Factors / Comments / Hazards			
Roof					
Walls					
Floors					
Building Dimensions: Length - Width - Height (in feet)					
Average Number of Occupants					
Day		Evening			
		Night			
Contact Information: Name & Phone					
Owner					
Manager					

Draft Facility Information Form (FIF) Back

Note: Standard 8½ X 11" size reduced by 20% to fit report format.

Floor Plan	
	
	

Plot Plan	
	

Appendix F (Final Facility Information Form)

Final Facility Information Form (FIF) Front


Note: Standard 8½ X 11" size reduced by 20% to fit report format.

Facility Name _____		Fixed Property Use: _____		Date _____	FIF # _____
Address: _____			Construction Description _____		Type _____
Fire Flow Requirements	Water Supply: Location & Flow (in gpm)		Exposures: Description & Distance (in feet)		
25% _____	#1 _____	_____	(A) _____	_____	_____
50% _____	#2 _____	_____	(B) _____	_____	_____
100% _____	#3 _____	_____	(C) _____	_____	_____
	#4 _____	_____	(D) _____	_____	_____
Access Locations for:		HazMat Considerations			
Sprinkler Connection _____		Chemical Name _____ Location _____ Amount _____ Classification _____			
Standpipe Connection _____		_____			
Annunciator Panel _____		_____			
Stairs _____		_____			
Elevator _____		_____			
Key Holder _____		Summary of:			
Electric Disconnect _____		Special Hazards _____			
Gas Disconnect _____		Entry & Access _____			
Hazardous Features		Special Apparatus Assignment _____			
<input type="checkbox"/> Tank Construction		Life Safety _____			
Type: _____		Exposure _____			
<input type="checkbox"/> Exposed Tanks		Confinement _____			
<input type="checkbox"/> UnExposed Tanks		Protection Systems _____			
<input type="checkbox"/> Attic		Ventilation _____			
<input type="checkbox"/> Basement		Occupancy _____			
<input type="checkbox"/> Vertical Voids		Fuel Load _____			
<input type="checkbox"/> Windows/Doors		Water Supply _____			
<input type="checkbox"/> Excessive Loads		Self-Defenses _____			
Beneficial Features		Utilities _____			
<input type="checkbox"/> Fire Escapes		Construction _____			
<input type="checkbox"/> Fire Walls		Other Notes _____			
<input type="checkbox"/> Fire Doors					
<input type="checkbox"/> Roof Ventilation					
<input type="checkbox"/> Enclosed Stair Wells					
Roof Ventilation					
<input type="checkbox"/> Feasible					
<input type="checkbox"/> Not Feasible					
Construction Of:					
Roof _____					
Walls _____					
Floors _____					
Building Dimensions: Length - Width - Height (in feet)					


Contact Information: Name & Phone					
Owner _____					
Manager _____					
Other _____					

Final Facility Information Form (FIF) Back

Note: Standard 8½ X 11" size reduced by 20% to fit report format.



Plot Plan



Floor Plan

Final Facility Information Form (FIF) General Directions

General Directions for Use of Facility Information Form (FIF)

The objective of the FIF is to: Provide a large majority of the information necessary to conduct safe effective fire ground operations.

The principle uses of the FIF is to aid in the size-up process.

All sections are labeled and will be described in detail in the following:

Additional information is available in the Fire Incident Report (FIR) guide book. If you are completing a form and do not understand what goes in a particular section leave it blank and seek assistance do not guess or just enter something to fill the space. Several completed examples follow this set of guidelines for your reference.

FIF Front (Data Section)

Facility Name - Write the facility name (what the business is called). Use proper name first then any other initialized name or referred name in parentheses, if applicable.

Fixed Property Use - This section should be used to identify the use of the property. The entry should be limited to 9 major categories, please enter the title not the number. (See page 15 in FIR guidebook.)

Date - Enter the date that the FIF planning session was initially conducted or revised.

FIF # - For the present time leave this section blank, it will be filled in later when all FIFs are incorporated into a master document. ☐ in the top right hand corner of the FIF # section will be used to identify if a PEP exist on the structure.

Address - Enter the correct street address, not a mail address.

Construction Description - Enter the basic description of the structure. (For example "Fire Resistive")(See pages 83 - 87 in FIR guidebook.)

Type - Enter the code number (1 - 8) of the basic description of the structure. (See pages 83 - 87 in FIR guidebook)

Fire Flow Requirements - This section has two purposes, the primary use is to identify the theoretical amount of water needed to stop the spread of fire. Space is available for three levels of involvement. These figures also allow the incident commander to determine if additional equipment or manpower is needed. For

reference, a first alarm assignment consisting of two pumpers and one ladder with nine personnel constitute an average flow on hand lines of 400 gpm. However, the total flow can be increased through the use of unmanned large stream devices. Use the IOWA formula for computing the gpm.

Water Supply - Space is provided to identify 4 primary hydrants. When considering order try to insure that the first and second hydrants are on different mains. Enter the abbreviated direction to the water supply from the front of the facility, then the actual location of the water supply. (If the water supply is at a street intersection enter the intersection, if the water supply is in the middle of the block enter the street address closest to the water supply.) (Example: N @ J & 8th NW; or E @ 213 Pine Ave NW) For flow enter the static flow for the hydrant in gpm. If any of the remaining 3 water supply hydrants are on the same line as the primary hydrant, list the residual flow in gpm preceded by an "R".

Exposures - Space is provided to identify possible exposure hazards in all directions of the facility. If none exist in a specific direction identify the fact with the "Ø" symbol. (Exposures should be identified in a clockwise direction, beginning with "A" for the address side of the facility, then continuing with "B, C, & D" clockwise around the facility.) For distance enter the number of feet the exposure is from the planned structure. If the exposure is connected to the planned structure you must identify the fact by entering the "Ø" symbol.

Access Location for - This section is used to identify the location of crucial features. For all items in this section except "Key Holder" enter the placement of the device relative to the building. (Example: NW corner, SE room, S wall, etc.) For "Key Holder" enter where the key is located, if it is in our possession enter "FD". If the key is in an apartment or room, enter that information. (Example: Room 324 or Apt. 121)

Hazardous Features - This section is used to identify some of the hazardous construction features of the structure. Mark all that apply. If truss construction is used be sure to identify the type and whether it is exposed or unexposed.

Beneficial Features - This section is used to identify some of the beneficial construction features of the structure. Mark all that apply.

Roof Ventilation - This section is used to identify the potential of completing roof ventilation. Mark which ever applies.

Construction Of - This section should be used to identify construction of the load bearing features of the structure. (Example for roof: 2x6 joist covered with

sheet metal)

Building Dimensions - In this section identify the measurements of the building.

Contact Information - Identify the contact names and personal phone numbers of at least two individuals who can provide access and information after hours.

HazMat Considerations - This section is used to identify bulk or IDLH chemical hazards applicable to the facility. List the chemical name, location and approximate amount within the facility. For the classification, look up the chemical in the DOT “Emergency Response Guidebook” and give the classification description at the top of the associated guide page. (Example: Gasoline, 500 gal, SE corner, Flammable Liquid)

Summary of - This section is used to summarize all special sections of the facility. Only use short quotes or statements, but please be clear. If a topic does not have any special concerns, leave it blank.

General Directions for Use of Pre-Plan Map

FIF Back (Plot & Floor Plan)

The map on the back of the FIF is used to give a graphic description of key locations, special features and water supplies. A symbol legend is provided at the bottom to standardize the features on the map, please do not alter the provided symbols. Be sure to orient your drawing of the facility correctly in both maps.

The plot map depicts one city block with an alley down the center and the fractions of the surrounding blocks. If an alley does not exist, enter “NO ALLEY” in the alley space. Attempt to draw the facility relative to how it actually exist in both size and placement within the block. Enter appropriate symbols from legend in drawing. If a water supply identified in the data section of the form can not be seen on the map, indicate the appropriate hydrant symbol or type of water supply with a directional arrow and approximate feet from intersection to the water supply. Enter the name of the streets within the street space. Include in your drawing additional obstacles that may effect fire suppression activities (Examples: overhead power lines, ditches, one way streets, vehicle parking areas, locked gates, or effects that limit access.)

On the floor plan section, draw out the basic floor plan. It is not necessary to draw interior walls, windows and doors on the map. Use the symbol legend and data section as a guide for what type of information is desired. Attempt to draw the layout to scale and mark the scale readings on the indicator.